

<b>Subject Code</b>	LGT5073
<b>Subject Title</b>	Risk Management in Operations
<b>Credit Value</b>	3
<b>Level</b>	5
<b>Normal Duration</b>	One Semester
<b>Pre-requisite / Co-requisite/</b>	None, but knowledge of elementary business statistics and probability will be advantageous.
<b>Exclusion</b>	ISE548 Risk and Crisis Management
<b>Role and Purposes</b>	<p>This subject seeks to develop the knowledge and analytical skills necessary in organizations related to logistics, maritime trade or those with a strong emphasis on operations and quality management, for making risk management decisions and ensuring business continuity, through the application of risk management principles.</p> <p>This subject contributes to the following Intended Learning Outcomes for the following programme(s):</p> <p>MSc in Management (Operations Management)</p> <p>#2: Develop the specific operations management knowledge</p>
<b>Subject Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> <li>a. Analyze risks in operations, by applying basic principles and techniques of risk management.</li> <li>b. Comprehend risk management assessment, identify appropriate risk management solutions and to effectively implement them.</li> <li>c. Use risk management concepts to devise appropriate risk management and business continuity (contingency) plans.</li> <li>d. Be familiar with risk management in operations to a level that is adequate for continued self-enhancement of knowledge and practical applications of the subject.</li> </ol>
<b>Subject Synopsis/ Indicative Syllabus</b>	<b>Introduction and Concepts in Risk Management</b>

Definitions of risk, concepts in risk management, identifying assets that need risk management, responsibility for risk management. Identification of positive and negative risks.

### **Identifying and Managing risks**

Business process risks, market risks, organizational risks, socio-economic and environmental risks. Controllable and uncontrollable risks, low-frequency and random risks, management of risks.

### **Assessing Risks**

Perceptions of risks, strategic and tactical approaches to risks, assessing various types of risks, Limitations of qualitative and quantitative risk assessments and the considerations for selection.

### **Risk reduction strategies**

Risk management strategies: risk avoidance, risk reduction, risk acceptance, risk transfer, insurance, identification, evaluation and ranking of risk reduction measures. Overview of risk culture and risk attitude.

### **Risk mitigation measures / Business continuity planning**

Contingency planning, crisis management, responding to disasters and risk events.

### **Risk management plans**

Cost of risk management, perceptions of risk and political factors, regulations and their effects on risk management, Security threats and insurance costs.

### **Safety and Security risks**

Safety and security risks, human factors, security threats to logistics / shipping, piracy, terrorism, impact of disruptions in shipping, resilience and vulnerability of shipping / logistics networks.

### **International Standards and Regulatory Requirements**

	International standards, regulatory requirements and best practices for business continuity.																																																																					
<b>Teaching/Learning Methodology</b>	<p>Lectures introduce and explain key theoretical risk-related concepts. Lectures are followed by class discussions where concepts are linked to real events in the industry through appropriate examples and their analysis.</p> <p>Discussions are highly interactive and include discussions of current / past events, case studies, and student presentations. Students are expected to actively participate in the classes and to share their experience and learn from each other.</p>																																																																					
<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	<table border="1"> <thead> <tr> <th rowspan="2">Specific assessment methods/tasks</th> <th rowspan="2">% weighting</th> <th colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th> </tr> <tr> <th>a</th> <th>b</th> <th>c</th> <th>d</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td><b>Continuous Assessment</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1. Group presentation</td> <td>25 %</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>2. Group written report</td> <td>25 %</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td><b>Final Examination</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1. Final examination</td> <td>50 %</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td><b>Total</b></td> <td><b>100 %</b></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Since the course focuses on risk management in operations, case analysis and learning from practical, work-based experiences forms an important constituent of student assessment. Further, assignments and class discussions reinforce theoretical concepts learnt during the lectures and enable their applications in real-life operational situations. Final examination is to assess student's familiarity with theoretical concepts and the ability to apply conceptual framework in case analysis.</p> <p>Students would be given regular feedback on their performance, by email or as comments on assignments submitted.</p>								Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d			<b>Continuous Assessment</b>								1. Group presentation	25 %	✓	✓	✓	✓			2. Group written report	25 %	✓	✓	✓	✓			<b>Final Examination</b>								1. Final examination	50 %	✓	✓	✓	✓			<b>Total</b>	<b>100 %</b>						
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	<i>To pass this subject, students are required to obtain Grade D or above in BOTH the Continuous Assessment and Exam components.</i>	
<b>Student Study Effort Expected</b>	Class contact:	
	Lectures / tutorials	39 Hrs.
	Other student study effort:	
	Self study for preparing lectures, tutorials and final examination	45 Hrs.
	Preparation group assignment	42 Hrs.
	Total student study effort	126 Hrs.
<b>Reading List and References</b>	<p><b><u>Main Reference Books</u></b></p> <p>Blunden, T &amp; John Thirlwell. (2010). <i>Mastering operational risk</i>. Harlow, England ; New York : Financial Times Prentice Hall</p> <p>Devlin, E.S. (2007) <i>Crisis management planning and execution</i>. Boca Raton, FL: Auerbach Publications, c2007.</p> <p>Haines, Y. Y. (2004) <i>Risk Modeling, Assessment and Management</i>. New York: Wiley.</p> <p>Handfield, R.B. &amp; Kevin McCormack (ed.) (2008) <i>Supply chain risk management: minimizing disruptions in global sourcing</i>. Roca Raton, Fla.: Auerbach Publications.</p> <p>Hubbard, D.W. (2009) <i>The failure of risk management: why it's broken and how to fix it</i>. Hoboken, N.J.: J. Wiley &amp; Sons.</p> <p>Oliver, E. Clifford. (2011) <i>Catastrophic disaster planning and response [electronic resource]</i>.Boca Raton: CRC Press.</p> <p>Trim, Peter R.J &amp; Jack Caravelli (ed.) (2009). <i>Strategizing resilience and reducing vulnerability</i>. New York: Nova Science Publishers, c2009.</p> <p><b><u>Main Reference Journals</u></b></p> <p>Journal of Business Continuity &amp; Emergency Planning</p> <p>Institute of Risk Management (IRM)</p> <p>The Public Risk Management Association, US (PRIMA)</p> <p>The Public Risk Management Association, UK (ALARM)</p> <p>Association of Insurance and Risk Managers</p>	